State Broadband Data and Development Grant Program

Grant Guidance

May 2010

Contents

1. Amended and Supplemental Application Submittal Directions

A. General Information

Awardees may submit a single plan to the Program Office that incorporates a proposal for up to an additional three years of broadband data collection, integration, validation and display and up to four additional years to support programs that implement Other Program Purposes.[1] The narrative must unite all activities under a common vision that describes how the proposed activities will prepare a state[2] for full participation in the digital economy through the use of broadband and information technology, and pursuant to the joint goals of the American Recovery and Reinvestment Act of 2009 (ARRA) and the Broadband Data Improvement Act (BDIA).

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[1] Other Program Purposes include all eligible SBDD activities except for broadband availability data collection, integration, validation and display.

[2] For the purposes of this Guidance, "state" means any state, the District of Columbia, or a territory or possession of the United States.

Eligibility: The State Broadband Data and Development (SBDD) Grant Program is accepting amended and supplemental applications for activities described in the Notice of Funds Availability (NOFA) published in the Federal Register on July 8, 2009, as clarified on August 12, 2009, and September 10, 2009.[3] The Program Office will only consider amended or supplemental applications from Awardees that have submitted data for the first data collection period and have submitted all other reports, as required by the Terms and Conditions agreed to in the award documentation.[4]

Due Date: Amended and supplemental applications must be received via email to broadbandmapping@ntia.doc.gov by Thursday, July 1, 2009 at 8pm Eastern Daylight Time. Awardees will receive confirmation of receipt within one business day of the date of submission. The SBDD Grant Program expects to execute all amendments no later than September 30, 2010.

Matching Funds & Cost Sharing Requirements: As described in the original NOFA, Awardees are required to provide and document at least 20 percent non-Federal matching funds toward the total eligible project cost; this is equal to 25 percent of the Federal funds awarded.   The Program Office supports Awardee efforts to obtain third party in-kind or cash support from foundations, corporations, non-profits, or state and local governments. If an Awardee has begun, but not completed, discussion with potential donors that may provide third-party in-kind support, the Program Office may approve a tentative match plan, but the Awardee must provide detailed documentation of its efforts to solicit support for the match. Use of Federal funds will be restricted until such time that an Awardee can document a 20 percent match in-hand.[5]

 Anitcipated Funding Levels: Expected funding ranges are listed in the section *Eligible Costs and Anticipated Funding Levels*. If requests for funding exceed available funding, the Program Office will generally favor those projects listed in the *Eligible Costs and Anticipated Funding Levels* section, in the order in which they appear in this document.

Partnerships: NTIA encourages Awardees to partner with other appropriate entities, including, but not limited to, other state agencies, local governments, and non-profit organizations, to help them accomplish the SBDD Grant Program purposes.

Limitation of Liability: This announcement does not oblige NTIA or the Department of Commerce to award any specific project or to obligate any available funds.

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[3] State Broadband Data and Development Grant Program, *Notice of Funds Availability and Solicitation of Applications,* 74 Fed. Reg. 32545 (July 8, 2009) (NOFA); State Broadband Data and Development Grant Program, *Notice of Funds Availability; clarification,* 74 Fed. Reg. 40569 (Aug. 12, 2009) (Technical Appendix Clarification); State Broadband Data and Development Grant Program, *Notice of Funds Availability; clarification of period of performance,* 74 Fed. Reg. 46573 (Sept. 10, 2009) (Period of Performance Clarification).
[4] Please note that Awardees must apply for funding to support broadband data collection activities in order for the Program Office to consider funding activities for Other Program Purposes. See*, NOFA, 74 Fed. Reg. at 32547.
[5] For information about the eligibility of matching funds, see, NOFA, 74 Fed. Reg. at 32550.

B. Required Elements for Submittal of Amended or Supplemental Applications

As any additional funding will be awarded pursuant to an amended or supplemental application, requests for additional funding must meet the requirements of the SBDD Grant Program NOFA, as clarified.

The Program Office will review amended and supplemental application requests to ensure compliance with the requirements of the NOFA. Therefore, Awardees are strongly encouraged to explain their needs, strengths and weaknesses thoroughly, taking into account their states' overall level of broadband Information Technology (IT) availability and adoption, their population characteristics and number of households, and any other specific factors that would warrant a greater or lesser amount of funds. As described in the NOFA, the "exact size of any award will depend on the specifics of each project, the quality of each project as determined in NTIA's review, as well as demographic and geographic features unique to each State." In addition, "costs must be reasonable, allocable and necessary to the project." [6]

Awardees should provide the elements listed below:

1. Project Abstract: The Project Abstract must not exceed one page and must contain a summary of the proposed projects. It should be a self-contained description of each project that the Awardee is proposing and should contain a statement of objectives and methods to be employed. It should be informative to other persons working in the same or related fields and insofar as possible understandable to a technically literate lay reader. This Abstract must not include any proprietary/confidential information. The Project Abstract must describe (i) the activities already approved and the funding awarded by the SBDD Grant Program and (ii) the requested budget for each project in each year of the Award Period and cumulatively. Project Abstracts will be made public.

2. Revised Form 424: Awardees must submit a revised Form 424 incorporating the requested budget revisions and additions. The forms are provided here:

   - http://www.grants.gov/techlib/SF424-V2.0.pdf
   - http://www.grants.gov/techlib/SF424A-V1.0.pdf
   - http://www.grants.gov/techlib/SF424B.PDF

3. Detailed Budget: Awardees must submit a detailed budget utilizing the Form 424A budget categories. The budget must clearly indicate the costs associated with each budget category by year and project. Awardees must also clearly indicate the in-kind and federal costs associated with each budget category.

4. Budget Narrative: Awardees must submit a budget narrative fully describing all requested revisions and additional funding. The narrative should also clearly describe the valuation provided for any proposed in-kind matches.

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[6] See NOFA, 74 Fed. Reg. at 32550-32551.

5. Project Narrative: Each Awardee must clearly describe any proposed changes to its previously approved application. The narrative must follow the format described in the original NOFA. More information about constructing the Project Narrative and maximum word counts are provided in this document.

   - Awardees should note that they must include, at the end of Project Narrative, a description not to exceed two pages that specifically describes how the proposed projects will fit into their state's comprehensive approach toward leadership in a digital economy.

6. Evidence of Support: Awardees must submit documents evidencing support from the State, local communities and other proposed beneficiaries necessary to accomplish the program purposes. Each letter from a state agency must clearly describe the agency's current participation in the project and its expected future participation during the period of performance.

The Program Office believes that a number of eligible activities within the scope of the SBDD Grant Program are either inherently governmental or a critical function of the government. These examples may include, but are not limited to, state action, which should be made as a result of informed, independent judgments made by government officials; work which is intimately related to the public interest as to require performance by government employees; work which pre-empts a state's own decision-making process, discretion or authority. The terms "critical functions"" or "inherently governmental authority" do not include the functions of gathering information for or providing advice, opinions, recommendations, or ideas to state officials.

If an agency or authority of the state is not the Designated Entity, the letter must describe how the state will perform activities that are inherently governmental. In such cases, the Program Office supports having the Designated Entity provide funds to the state, utilizing a legal instrument, in order to perform some or all of the activities listed under *Other Program Purposes*. The Program Office continues to expect that many capacity-building activities, even if performed by the Designated Entity, must be planned and executed under direct state supervision.

C. Project Narrative Requirements

At the beginning of each Project Narrative, the Awardee should list the following: the total amount already obligated by NTIA; the amount of funding requested in the proposal; and the sum of these two amounts. Immediately following this, the Awardee should provide a very brief description, not to exceed 250 words, of the currently funded activities. Following this, each Awardee must provide a description of each project for which the Awardee is requesting amended or supplemental funding (*e.g.*, data collection and mapping; state broadband capacity building; and technology planning teams). The expected content for the description of each project is detailed below this paragraph, and follows the guidelines described in the NOFA. After describing each of these additional projects, the Awardee should provide a conclusion, of not more than two pages of single-spaced text in 12-pt Times New

Roman or 11-pt Calibri and using one-inch margins that specifically describes how these activities fit into each state's comprehensive approach toward leadership in a digital economy.

The NOFA describes two different narrative requirements. One is for data collection activities and the other is for other SBDD Grant Program purposes. Awardees must follow those same requirements here.

i. Narrative: Data Collection and Related Activities

This piece of the proposal should be marked clearly as "Data Collection, Integration, Verification and Display" and its contents should clearly indicate any proposed changes to the semi-annual process of data collection, integration and verification, including any currently accepted Leading Practices.[7] This portion of the submittal must not exceed four pages of single-spaced text in 12-pt Times New Roman or 11-pt Calibri and using one-inch margins.

- Under the title, "Data Collection, Integration, Verification and Display," each Awardee should list the current amount that has been awarded for this activity, the new funding request contained in the proposal, and the sum of these two figures.
- As each cycle of data collection requires the Awardee to collect and verify data, Awardees should follow the format of the NOFA and describe both the proposed data gathering methodology and the description of the specific methods the Awardee will use to continue to integrate the data and verify the accuracy of the data gathered during each data cycle, including the data quality feedback loop between the Awardee and broadband providers. The section describing verification should clearly indicate all currently used and proposed public and private data sources that the Awardee will use to compare against the source data set. These paragraphs should highlight any changes to the Awardee's current methodology. Each sub-section should be clearly marked as "Data Gathering Methodology," "Processes for Data Integration" or "Verification Methodology." This part of the proposal should also indicate whether an Awardee has included budget funding for implementation of future Leading Practices. More information about future Leading Practices is available in the section *Eligible Costs and Anticipated Funding Levels.*
- If the Awardee is proposing to alter how it will provide non-confidential data to the public or keep confidential data secure, it should describe these changes. The Program Office has not approved any changes to the definition of Confidential Information, as described in the NOFA, as clarified.
- Awardees are encouraged to develop a plan that allows them to begin address level collection in areas greater than two square miles by Year 3 of the project. While address files are commercially available, the Program Office recognizes that these files do not exist for all areas, particularly rural regions. The Program Office will consider requests to fund a portion of the cost to build-out address files in regions where they are not currently available. More information about the Program Office's interests in regard to address-file development is

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[7] This requirement comports with the application requirement described in the NOFA. See NOFA, 74 Fed. Reg. at 32552-32553. Leading Practices are defined in the Appendix to this document.

available in the section *Eligible Costs and Anticipated Funding Levels.* This section should be clearly marked as "Address File Development."

ii.   Other SBDD Program Purposes

The Program Office has identified five project types that meet the requirements of the SBDD Grant Program, and has provided expected funding levels for each project. Awardees may propose implementing additional projects as long as those projects meet the Program's eligible uses. For <u>each</u> project proposed (*e.g.,* data collection and mapping, state broadband capacity building, or technology planning teams), the Awardee must follow the requirements in the NOFA. In addition, the Program Office requests that Awardees list the current amount that has been awarded for this activity and the funding request contained in the proposal.

Each section of the proposal (Name, Funds Awarded, Funds Requested, Project, Solution, Outcomes, Cost, SBDD Purpose) must be clearly marked. The maximum allowable page limit for each project is <u>four</u> single-spaced pages in 12-pt Times New Roman or 11-pt Calibri and using 1 inch margins. The Program Office will generally consider funding no more than three projects, excluding the data collection project, per Awardee. Depending on the size and scope of the request, the Program Office may approve the initial project plan but restrict the use of Federal funds until such time that the Awardee submits a complete project plan to NTIA.

For the purposes of these amendments, the Program Office requests Awardees to submit this information in the following order, and with the titles listed below:

- NAME: Project name and one sentence description
- FUNDS AWARDED: Amount that has already been awarded by the Program Office for this project, or for activities that are part of this project
- FUNDS REQUESTED: Level of funding requested from the SBDD Grant Program for this project
- PROBLEM: The problem the project is addressing
- SOLUTION: The proposed solution (*e.g.,* a clear description of the project activities and proposed timeline). Awardees should note if the solution described here is part of a larger project funded through other public or private entities.
- OUTCOMES AND BENEFITS: The anticipated outcomes and benefits of the project
- COST: The cost of the proposal in light of the previous factors (*e.g.*, a justification of the reasonableness and cost-efficiency of the project)
- SBDD PURPOSE: The SBDD-related purpose that the project addresses and an explanation of how the project relates to that purpose

2. Eligible Costs & Anticipated Funding Levels

A. Data Collection & Related Activities

Repeated Data Updating: Each Awardee is expected to submit a request to fund its process for repeated data updating, as described in the NOFA, for three years in addition to the two years of data collection already funded. This proposal should clearly indicate any proposed changes to the semi-annual process of data collection, integration and verification, including any currently accepted Leading Practices.[8] As each cycle of data collection requires the Awardee to collect and verify data, Awardees should follow the format of the NOFA and describe both the proposed data gathering methodology and the description of the specific methods the Awardee will use to continue verifying the accuracy of the data for each data cycle. Both of these paragraphs should highlight any changes to the Awardee's current methodology, including the implementation of Leading Practices (discussed below). If the Awardee is proposing to alter how it will provide non-confidential data to the public or keep confidential data secure, it should describe these changes. The Program Office has not approved any changes to the definition of Confidential Information, as described in the NOFA, as clarified.

Improving Address Files: Awardees are encouraged to develop a plan to develop address files in census blocks greater than two square miles immediately and to begin address-level collection in these areas by Year 3 of the project. While address files are commercially available, the Program Office recognizes that these files do not exist for all areas, particularly rural regions. The Program Office will consider requests to fund a portion of the cost to build-out address files in regions where they are not currently available. Considering the number of public and private stakeholders that would benefit from such a project, the Program Office will generally favor requests that contemplate numerous partners and cost-sharing. Additionally, the Program Office is most interested in creative, cost efficient approaches that utilize crowdsourcing, Application Programming Interfaces (APIs) and open platforms, including platforms that would allow address file access to providers, in order to improve the efficiency of the process, and to create a built-in feedback loop.

Future Leading Practice Implementation: Awardees are encouraged to include a funding request in their budgets for incorporation of Leading Practices identified and agreed upon by both the Awardee and the Program Office for Years 2-5. The funds should not exceed 10 percent of the total proposed five-year costs for activities related to data collection, integration, verification and display. The Program Office believes that implementation of many Leading Practices will not require an increase in costs because they are either technical changes that do not require additional resources or because such costs will be offset by the elimination of costs for other activities. Funding of this line-item will be made pursuant to a Special Award Condition that will restrict use of the funds until such time as the Program Office and Awardee agree upon necessary implementation of these Leading Practices. Awardees should place this line-item in the "Other" budget category in the SF-424.

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[8] This requirement comports with the application requirement described in the NOFA. See NOFA, 74 Fed. Reg. at 32552-32553.

Anticipated Funding: The initial awards for two years of data collection, integration, validation and display included one-time costs and will facilitate certain efficiencies and economies of scale as the project advances. However, the Program Office also expects that some new costs may be incurred due to the implementation of Leading Practices. Accordingly, funding for an additional three years should not significantly exceed the two-year amount. For example, if an Awardee initially received the average award size of $1,400,000 for <u>two</u> years of broadband data collection, integration, validation and display, the cost of <u>three</u> additional years of data collection may be as much as $1,650,000. This figure excludes the costs associated with supplementing a state's address file. The Program Office will also consider requests to augment the approved budget for broadband data collection, integration, validation and display activities in Year 2, if those augmentations include the implementation of Leading Practices.

B. Other SBDD Grant Program Purposes

Below are examples of eligible SBDD Grant Program activities.[9] Awardees should consider these activities, and any other activities that constitute an eligible use of SBDD funds, relative to the needs of their states.   The Program Office is aware that each state is unique in its assets and needs, and looks forward to proposals that describe the specific need for projects in each state.

State Broadband Capacity Building: Where not already supported, the Program Office anticipates providing support for at least one Program Director and any needed support staff located in each State. Program Directors and associated staff are likely to support or lead activities including, but not limited to, the following:

- Plan and implement state broadband task forces or advisory boards.
- Develop state plans to support broadband and IT growth and adoption. This includes the completion of strategic planning based on gap analysis of availability, adoption and the existing capacity of local support organizations. It also includes gathering state and local benchmark data to determine program success over time.
- Assess the programs that currently exist within a state that already support broadband growth and adoption.
- Convene statewide or regional events intended to disseminate technical information about broadband availability data collection and the results of research conducted, and to further improve understanding of and opportunities to enhance broadband within a state.
- Lead inter-agency coordinating activities at the state level, supporting intra-governmental activities across the state. Awardees should propose the types of activities that state agencies should complete and those that cross-governmental groups should complete. This may include development of streamlined permitting processes, coordination of local government officials

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[9] A list of SBDD eligible uses, as defined by those eligible BDIA uses, is contained in Footnote 6 of the NOFA. See NOFA, 74 Fed. Reg. at 32546, n. 6.   We note that the National Broadband Plan's (NBP) recommendation number 9.1, ("*Federal support should be expanded for regional capacity-building efforts aimed at improving broadband deployment and adoption.")* supports many of the activities identified below, and that the Public Purposes listed in the NBP could also be supported by many of these activities.

leading broadband access and adoption efforts, and support of sector-specific (education, health, etc.) coordination efforts.

- Work with the private sector to create public-private partnerships to access infrastructure, technical expertise, training and program funding, and compete for grants required to further support improved broadband access and adoption across a state or region.   The Program Office does expect that any reference to public-private partnerships will be accompanied by a detailed description of the goals, outcomes, and related costs.

Anticipated Funding Level: In many states, a portion of the Program Director's time may also be directed toward leading the data collection program. The Program Office anticipates providing staffing support at a level between $400,000 and $1,000,000 over the remaining four years of the Program, if those positions have not already been funded. This figure does not include expected expenses such as travel, materials, supplies, equipment, or indirect costs.

Technical Assistance: This activity area focuses on leveraging the State's core competencies and its ability to convene, support, coordinate and enhance programs that provide digital literacy training and access to broadband and related equipment. While this activity may be carried out through the state's Program Office, NTIA anticipates that many Awardees will need to develop additional partnerships, particularly with those organizations that have significant past experience providing technical assistance. Awardees should consider what the proposed Technical Assistance (TA) program will include, how it will be deployed and its ability to leverage existing and historical TA programs and knowledge-bases within each state. Examples of activities include, but are not are limited to, the following:

- Provide technical expertise to local institutions, non-profits and governments to develop or help sustain deployment and adoption-related initiatives. This may include activities such as technology strategy development, train-the-trainer activities, and sustainability planning.
- Coordinate and enhance recent and long-standing volunteer and non-profit programs that provide digital literacy and small business broadband training. There exists a robust history, spanning more than a decade and a half, of programs designed to improve digital literacy skills and ultimately broadband use and adoption. In light of this, the Program Office expects that prior to proposing any competitive subgrant programs, whether the purpose is to provide TA to organizations or businesses or to provide funding, the Awardee should catalogue and inventory existing programs within the state, and provide assistance in coordinating activities and fostering statewide communities of excellence in these areas.
- Support the creation of tribal, regional or local task forces or advisory boards and strategic plans. This could include hiring staff or consultants who are from a specific community and are knowledgeable about the issue area to provide assistance in organizing, stakeholder outreach, meeting coordination, etc.
- Support tribal, regional or local coordinating activities, including through direct subgrants.
- Provide educational information to communities, businesses and other stakeholders about the efforts being undertaken to improve access and adoption across a state or region.
- *NOTE:* The Program Office is aware that some activities listed in *State Broadband Capacity Building* may be eligible for funding in the *Technical Assistance* section, and vice versa. These

lists are intended as guidance only and the Program Office expects that Awardees may choose to include different, but complementary activities in their own proposal descriptions. To the extent that an Awardee is seeking support for computer ownership and Internet access programs, it must ensure that a robust technical assistance component is included.

Anticipated Funding Level: The Program Office anticipates providing per state awards ranging between $250,000 and $1,750,000 over the remaining four years of the Program.

<u>*Local/Regional Technology Planning Teams*</u>: Technology Planning Teams should be constructed based on the geographic or sector division that each state deems most appropriate. In general it is expected that these teams should benchmark technology use across relevant community sectors; set goals for improved technology use within each sector; and develop a plan for achieving its goals, with specific recommendations for web-based application development and demand creation. The Program Office expects that the majority of activity for each locality or region will take place in the first one to two years of activity. The Program Office expects that proposals for this activity will incorporate or be accompanied by a proposal for Technical Assistance, unless an Awardee already has such programs in place.

 Anticipated Funding Levels: The Program Office anticipates providing per state awards ranging between $250,000 and $1,250,000 over the remaining four years of the Program.

<u>*Application Usage and Development*</u>*:* These activities support accelerated broadband application development and usage in key areas of government such as education or transportation, or any of the other Public Purposes discussed in the Broadband Plan that state, tribal, local or regional governments can directly affect. Awardees should describe what area of government the proposed application(s) will affect, the purpose of developing the application, how they plan to develop the application(s) (*e.g.*, contests and competitions, grants, traditional procurement) and how each application is expected to impact broadband availability or adoption in specific communities. For example, Awardees may consider how to implement open government solutions such as data.gov in their own states.

 Anticipated Funding Levels: The Program Office anticipates providing per state awards ranging between $150,000 and $1,000,000 for the development of broadband applications and plans to increase their use.

<u>*Programs to Improve Computer Ownership and Internet Usage*</u>: Funds provided in this area will support or establish programs designed to improve computer ownership and Internet usage. The Program Office strongly favors project proposals that will provide a combination of primarily TA and, secondarily subgrants, to small organizations or businesses, whose small size and limited technical qualifications would have limited their ability to file Broadband Technology Opportunities Program grant applications that fit within program guidelines. The funding will further integrate broadband use and computer ownership into each organization and/or the programs they run in their communities. Characteristics of such programs include, but are not limited to:

- A robust TA program that provides support to each subgrantee before, during and after any subgrants are awarded. It is expected that a program of this nature would engage potential subgrantees in TA activities for at least a year prior to the disbursement of any funds and a year after the subgrant funds have been expended. TA activities may, for example:
  - Aid the eligible subgrantee in the development of a technology and staffing plan (described below);
  - Advance subgrantees' technical knowledge through train-the-trainer modules;
  - Help develop an evaluation system and metrics so that a subgrantee may effectively evaluate the extent to which it met its planned goals with the use of the funds;
  - Support subgrantees in their ability to comply with federal funding requirements; and
  - Assist in the development and execution of a sustainability plan to continue the activities once funds have been expended.
- Demonstrated readiness for the institutional adoption of broadband by subgrantees after the completion of initial TA activities, but before any subgrants are awarded. This is evidenced by the creation of at least a technology and staffing plan, or similar instruments, by all potential subgrantees prior to their eligibility to compete for subgrants. Given this distinguishing feature of the project, the Program Office expects that subgrantees will have limited existing capacity to utilize broadband in their organizations prior to their involvement in the project.
- Eligible subgrantees that currently maintain operating budgets of less than $500,000 each. The Program Office expects that many eligible subgrantees will have significantly smaller budgets.
- Subgrant award sizes that are commensurate with the limited budgets of the eligible subgrantees. The Program Office generally expects that individual subgrant awards will not exceed $50,000 and may often be less than this amount.
- A requirement by the SBDD Awardee that project proposals from eligible subgrantees detail what outcomes are expected as a result of the funding and relative to the organizational growth and/or expanded programmatic capacity of the subgrantee.
- Subgrant projects that support either the subgrantee's own institutional adoption of broadband or that of both itself and those it serves. Examples include:
  - After completing the first year of the TA program, an eligible subgrantee may request, for example, support for broadband connectivity, hardware, software and employee training.
  - After completing the first year of the TA program, an eligible subgrantee may request, for example, support for connectivity, hardware, software, and program participant training. The limited sizes of the subawards necessitates that eligible subgrantees will incorporate participant training into its ongoing programmatic activities. If a potential subgrantee maintains an existing job training or afterschool program, for example, it is expected that it would incorporate the requested broadband training into these existing activities rather than creating a new program.

In addition to the other project proposal requirements, an Awardee should be sure include descriptions of any partnership that it has built, or proposes to build, in order to implement this project and the due diligence that it has conducted in order to avoid duplication of efforts within a state.

The Program Office will favor requests demonstrating that a state is undertaking this program after having completed initial, statewide planning and capacity-building efforts.

Anticipated Funding Level: The Program Office anticipates providing per state awards ranging between $500,000 and $1,250,000.

Appendix: Leading Practices in Broadband Data Collection, Integration and Verification

As discussed in the Period of Performance Clarification published on Sept 10, 2009, NTIA limited the initial period of funding for broadband data collection efforts to two years. This decision was made in order to allow the Program to "assess lessons learned, determine best practices, and investigate opportunities for improved data collection." While the Program Office expects that the methodologies currently employed by Awardees will continue to evolve, meaningful lessons have already been drawn from the first data collection. The Program Office has generally termed these as "Leading Practices" and strongly encourages Awardees to include these practices in their proposals for budget revisions and application amendments for Years 2-5. The Leading Practices are outlined below:

A. General

Method of Submission: The Program Office will accept semi-annual submissions via the geodatabase that has been jointly developed by many Awardees as well as other state GIS professionals. The Program Office strongly encourages all Awardees to include a commitment to submit data in this format in their proposals.

B. Data Sources

Address Level Data: While utilizing road segment information provides more accuracy in rural communities than would a measurement of availability taken from census blocks, the lack of a common and complete road segment database necessarily leads to increased variation in the underlying data elements. Accordingly, Awardees may consider developing a plan, beginning no later than Year 3, which will allow them to collect availability data at an address level for areas located in Census Blocks greater than two square miles (see previous portions of this document for more information).

Speed Geography: The option to provide speed data across each service area or local franchise area, by Metropolitan or Rural Statistical Area, has caused considerable technical challenges and may lead to an overstatement when calculating speeds in a given area. The Program Office supports Awardee plans to focus efforts on determining the speed information at a census block or road segment level.

Typical Speed: Typical speed is defined as a "transfer throughput rate that most subscribers to service at the maximum advertised downstream speed can achieve consistently during expected periods of heavy network usage." This element was originally included as a measure to understand what speeds consumers should expect to typically receive. Awardees are encouraged to reconsider what data may potentially be available from public sources that will meet this goal and propose a plan to collect this data.

Resellers: Given that one of the primary purposes of each state map, and the National Broadband Map, will be to provide consumers with broadband availability information for their communities, the Program Office will consider requests to continue efforts to include reseller information in each state's broadband map.

Integration of Public Data Sources: A significant amount of broadband availability data can be obtained through public sources. These include applications for local franchises, applications submitted to a state utility board and information available on providers' websites. The Program Office strongly encourages the development and implementation of these activities in each state as the data is very useful for verification activities.

Free Public WiFi: Several Awardees have sought to compile or add free wireless broadband services operated by a government, business or community entity to the data provided to NTIA. Awardees that wish to submit this information to NTIA should provide the service area and associated information in the same format as it does for other fixed wireless providers.

Pricing: A number of Awardees have expressed interest in gathering pricing information. Moreover, the Program Office has always envisaged that the effort to build the National Broadband Map would include research on price information.[10] At this time, the Program Office will favor proposals to gather publicly available information across a sample of addresses and providers within each state, including, for each address: (i) price points per tier, (ii) required bundles, (iii) equipment rebates or costs and (iv) incentive offers.

C. Data Quality/Verification

Data Confidence Scales: Many Awardees have developed a confidence scale to indicate the level of confidence that the Awardee has for each record. The Program Office strongly encourages all Awardees to continue developing these scales and should anticipate that the Program Office will identify a Leading Practice within the next year.

Verification Activities:

- *Ongoing Verification Activities:* The Program Office assumes that broadband availability will change incrementally during each six month period of the Program. Verification activities, which essentially compare multiple data points against each other to improve confidence in any one data point, should not be wholly recreated with each data collection. Rather, Awardees are encouraged to implement a strategy that identifies and focuses on those data for which the Awardee is less confident, based on prior verification. The Program Office believes that a critical source of information in identifying areas of lesser confidence is crowdsourced data. Awardees should identify the proposed feedback loop from the public to the Awardee, the Awardee to the providers, and the Awardee back to the public.

- *Surveys:* Awardees are encouraged to only build upon existing survey efforts if it is clear that these efforts are yielding substantive results in assessing the quality of the base datasets collected by Awardees. Awardees interested in continuing survey work as a verification tool should clearly explain how the surveys will be used. For example, an Awardee should describe

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[10] NOFA, 74 Fed. Reg. at 32564, n. 40.

whether the survey will focus on small populations in areas in which an Awardee has less confidence in the underlying data set or whether the survey will be collected statewide.

- *In-Person Community Engagement:* In addition to seeking crowdsourced data, the Program Office strongly encourages the continued and expanded use of community meetings, particularly in areas in which the Awardee has lesser confidence in the data quality. Meeting with community residents and leaders to verify and discuss the results of the data collection efforts is an important tool in verification. By engaging those who may be unable or less inclined to take a speed test, community meetings generate increased participation in the process of data collection, and promote a community's readiness to utilize broadband and information technology.

- *Provider Feedback:* Awardees should continue formalizing a feedback loop with all providers in order to (i) provide feedback to providers regarding the depictions of their availability and (ii) discuss conflicting information that the Awardee may receive from community meetings, crowdsourced data, publicly available data, or other information.

Small Providers: The Program Office continues to support creative work plans, such as direct technical assistance and multiple submission methods, to improve the participation of smaller broadband providers.

Methodology: While all Awardees must currently provide metadata in a read-me file, many Awardees have chosen to provide a more detailed description of their methodology as part of their submissions. The Program Office supports the development of such descriptions as they ultimately decrease the need for post-submission interviews to clarify any information of which the Program Office is uncertain. Awardees should note that the Program Office expects to develop a Leading Practice in this area within the next six months.